

REMARKS

Applicant has amended the claims in order to clarify the present invention and new claims 10 and 11 are presented to specific embodiments of the present method.

Claims 1, 4, 5, and 9 are rejected under 35 USC 103(a) in view of a combination of a teachings of Svedberg et al. (U.S. 6,194,032) and Drotar et al. (U.S. 3,573,973). Reconsideration and removal of this rejection is respectfully requested in view of the amendments to Claim 1 and the following remarks.

In the Office Action, it is pointed out that Svedberg discloses that nickel is selectively formed on a refractory metal pattern on an aluminum nitride substrate with electroless plating. The Office Action further points out that Drotar discloses that a catalyst is formed on the entire surface of the substrate, and a protection film (negative facsimile) is patterned, and a metal layer is selectively formed by electroless plating.

The Office Action then alleges that the method of Claim 1 is obvious by a combination of Svedberg and Drotar.

Claim 1, as amended, includes the forming of an oxidizing agent (H_2SO_4 or $\text{H}_2\text{SO}_4/\text{HCl}$) rather than forming of a protection film.

It is not described or suggested in either Svedberg and Drotar, or their combination, that an oxidizing agent which can oxidize the catalytic metal is coated on the catalytic metal in a space portion between conductive patterns.

Claim 1 has been amended such that forming the protective film is deleted, and only forming of an oxidizing agent is left, and a function of the oxidizing agent is clarified.

In addition, the feature of Claim 5 that the coating of the oxidizing film, to make the catalytic metal in an inactive state to the electroless plating, is on the catalytic metal in a space portion S between the conductive pattern has been included in Claim 1.

Claims 2, 6 and 8 stand rejected under 35 U.S.C. 103(a) as obvious in view of Miller (U.S. Patent 4,668,533). Reconsideration and removal of this rejection is respectfully requested in view of the present amendments to Claim 2 and the following remarks.

The Office Action points out that Miller describes adhering a catalytic metal onto an active integrated circuit which has a patterned conductive region..

The Office Action alleges that Miller teaches an electroless plating method where a catalytic metal is adhered onto an active integrated circuit with patterned conductive regions. While admitting that Miller does not specifically disclose applying the metal only to the conductive patterned surface, it argues it would be obvious to do so if one wished to coat the metal surface of an integrated circuit since that would be the only area one would wish to make reactive with the electroless solution.

While Miller does teach the use of an ink jet printer for metal images, as admitted by the Examiner, he does not specifically disclose the selective adhering of a catalytic metal only on the conductive pattern. This distinction is emphasized by adding “only” to Claim 2. Also, Miller does not teach or suggest that conductive patterns are exposed on a surface of the substrate.

The rejection of Claim 3 in view of a combination of Svedberg, Drotar et al. and Zohar et al. (U.S. 6,754,551) is also believed to be overcome by the present amendments to Claim 1 and the above remarks.

New Claim 11 provides that a protective film is selectively formed on the catalytic metal in a space portion between the conductive pattern and that the conductive pattern is arranged such that the space portion has a plurality of different dimensions and the protective film is selectively formed in portions which are smaller than a predetermined dimension of the space portion, basically a combination of portions of original Claims 1 and 5. Such a method is not taught or suggested, as above described.

In view of the present amendments to the claims and the above remarks, Applicant's Claims 1-11 are believed to be patentable and early action towards allowance thereof is respectfully requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS,
HANSON & BROOKS, LLP



William G. Kratz, Jr.
Attorney for Applicant
Reg. No. 22,631

WGK/nrp
Atty. Docket No. 040170
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930



23850

PATENT TRADEMARK OFFICE